

# Exchange Server Backup and Restore

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WHITEPAPER BackupAssist Version 6 www.BackupAssist.com





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## 1. Introduction

### 1.1 Overview

This whitepaper outlines how to perform live backups of your Exchange Server's information store database. For information on backing up individual mailboxes of an Exchange Server see our **Exchange Mailbox Add-on** whitepaper: <a href="http://www.backupassist.com/downloads/whitepapers/ExchangeMailboxBackup">www.backupassist.com/downloads/whitepapers/Exchange Server's information store database. For information on backing up individual mailboxes of an Exchange Server see our **Exchange Mailbox Add-on** whitepaper: <a href="http://www.backupassist.com/downloads/whitepapers/ExchangeMailboxBackup">www.backupassist.com/downloads/whitepapers/ExchangeMailboxBackup</a> WP.pdf

## 1.2 Requirements

To back up and restore your Exchange Server information store using BackupAssist you need the following:

- BackupAssist v6
- Windows 2000, XP, Server 2003, Server 2008 or Server 2008R2.
- Microsoft Exchange Server 2000, 2003, 2007, or 2010
- Windows Backup (NTBackup) or Volume Shadow Copy (VSS):

NTBackup of Exchan	ge server				
	Win 2000	Win XP	Win 2003	Win 2008	Win 2008R2
Exchange 2000	Ø	<b></b>		8	
Exchange 2003	Ø	<b></b>		$\bigotimes$	
Exchange 2007	Ø	<b></b>		$\bigotimes$	
Exchange 2010	8	8	8		
VSS backup of Excha	ange 2003, 200	07, 2010			
File replication	8	<b></b>		$\bigcirc$	
Rsync	8	<b></b>		$\bigcirc$	
Zip	8	$\bigcirc$		$\bigcirc$	
Windows imaging	8	8		$\bigcirc$	

## 1.3 Local and remote backups of Exchange

	BackupAssist running on Server 2008	BackupAssist running on Server 2003
Local Exchange information store backup		Using the NTBackup engine (Exchange 2000, 2003 and 2007)
Remote Exchange information store backup	To back up the Exchange information store of a remote server you need to install BackupAssist locally on the Exchange Server itself and purchase a separate BackupAssist license.	Using the NTBackup engine (Exchange 2000, 2003 and 2007 <sup>1</sup> ).
Local Exchange mailbox backup	<b>⊘</b> 2	<b>⊘</b> 2
Remote Exchange mailbox backup	<b>⊘</b> 2	<b>⊘</b> 2

<sup>&</sup>lt;sup>1</sup> Refer to the Remote Exchange 2007 requirements section for more information.

<sup>&</sup>lt;sup>2</sup> Requires an Exchange Mailbox Add-on license. Refer to our <u>Exchange Mailbox Whitepaper</u> for more information.



#### 1.3.1 Remote Exchange 2007 backup requirements

If you are attempting to back up an Exchange 2007 Server remotely (i.e. Exchange 2007 is running on a different server than your backup server) you will need to install the Exchange Server Management Tools on the machine where BackupAssist is installed, which should be a machine running Windows 2000, XP or 2003. NTBackup will be used to back up the remote Exchange information store.

Note: this method cannot be used to back up Exchange 2010 remotely.

#### 1. If BackupAssist is running on a <u>32-bit</u> operating system:

Download and install the Exchange Server 2007 Management Tools (32-bit): http://www.microsoft.com/downloads/details.aspx?familyid=6BE38633-7248-4532-929B-76E9C677E802&displaylang=en

#### 2. If BackupAssist is running on a <u>64-bit</u> operating system:

Install the Exchange Server 2007 Management Tools (64-bit) from the installation disc or setup file used to install Exchange 2007 on your remote server.

If you have installed a version of Exchange Server 2007 that came pre-packaged with Exchange 2007 Service Pack 1, you will need to make a small alteration to the Windows registry due to a change made by Microsoft.

Note: if you installed Service Pack 1 after installing Exchange Server 2007 the change should not be required.

#### **Excerpt from Microsoft article:**

To adhere to the Microsoft Secure by Default initiative, the remote streaming functionality (server-wide) in Exchange 2007 SP1 is disabled by default. A manual override in the form of the following registry value must be enabled to restore this functionality:

HKEY\_LOCAL\_MACHINE\System\CurrentControlSet\Services\MSExchangelS\ParametersSystem

Name: Enable Remote Streaming Backup

Type: **DWORD** 

Value: 0 = default behavior (remote backup disabled); 1 = remote backup enabled

Refer to http://technet.microsoft.com/en-us/library/aa998870.aspx for full instructions.

## 2. Backing up Exchange using NTBackup

### 2.1 Creating a NTBackup job

If you are running BackupAssist on a Windows 2000, XP, or 2003 machine and need to back up Exchange Server either locally or remotely, complete the following steps to create a backup job. If you already have an NTBackup job you can skip to **section 2.2**.

- 1. Launch BackupAssist and from the **File menu** select **New backup job**.
- 2. Choose NTBackup and click Next.
- 3. Continue configuring the job according to your requirements. You will need to configure Exchange backup after you have finished creating the job. This is described in **section 2.2**.
- 4. If you do not need to select data in the Files and folders step, click Next and then Ignore when prompted.



5. Once you have created your backup job you will be taken to the job edit window:





## 2.2 Adding an Exchange Server to your backup selections

To back up the information store using NTBackup you must add it to the Exchange Servers Window. Once added, there are two types of Exchange Server backup you can configure:

- Information store: entire Exchange Server database
- Individual mailbox: brick-level backup of user mailboxes (requires the Exchange Mailbox Add-on). For details on mailbox backups refer to the <u>Exchange Mailbox Add-on</u> white paper.

To add an Exchange Server to your job:

- 1. From the left menu under **Job settings** select **Exchange Servers**.
- 2. Within the **Exchange Server selection** section click **Add Exchange Server**. A window will appear that displays all of the available Exchange Servers on the network.

BackupAssist	
Exchange server addition	backupassist.com
Autodetecting available Exchange servers	SackupAssist
Select the Exchange servers you wish to back	up:
No new servers detected in the current domain.	
These Exchange servers cannot be accessed:	
To backup these servers, grant exchange administra	tor privileges to your
HANDEL	IICrosoft.com/kb/823018
Search for Exchange servers on other domains	
[	Search
To add the selected server	rs to your backup click Add.
	Add Cancel

**Note**: If your Exchange Server resides on a different domain to that of the machine where BackupAssist is installed you can enter the name or IP address of the Exchange Server and click **Search**.

- 3. Click Add to add the selected Exchange Servers to your backup selections.
- 4. Check Backup storage groups for each Exchange Server you want to back up.
- 5. Now select which storage groups to back up for each Exchange Server:
  - Check Select all storage groups if you wish to back up all storage groups and any future storage groups that are created (recommended). You can exclude specific storage groups if required by unchecking them, but all future storage groups created will still be backed up.
  - Or, leave **Select all storage groups** unchecked and individually check each storage group to back up. No storage groups created in the future will be backed up, only those selected.
- 6. Click Apply changes when you have finished making your selections.

## 3. Restoring Exchange using NTBackup

Restoring an Exchange Server from a backup created using NTBackup requires three steps. This example follows from the backup process completed during **section 2**. This example assumes that Exchange Server is installed on the system. If you backed up Exchange Server using a VSS application backup refer to **section 6** for the required restoration steps.



## Step 1: Dismounting Exchange Server stores

Before you can restore your Exchange Server database you need to dismount the stores you are restoring to:

- 1. Launch the Exchange System Manager from the Start menu.
- 2. Expand the **Servers** tree to locate the appropriate server and storage group (screenshot below).
- 3. Right-click each store individually (typically Mailbox Store and Public Folder Store) and select Dismount Store:



4. Your stores should have an icon with a red arrow to indicate that they have been dismounted:



### Step 2: Performing the Exchange restore using NTBackup

Run Windows Backup (NTBackup) to restore your Exchange Server database:

- 1. Go to Start Menu > All Programs > Accessories > System Tools > Backup
- 2. If Windows Backup launches in Wizard Mode click the Advanced Mode link

Backup or Restore Wizard		×
	Welcome to the Backup or Restore Wizard	
	This wizard helps you back up or restore the files and settings on your computer.	
0	If you prefer, you can switch to <u>Advanced Mode</u> to change the settings used for backup or ristore. This option is recommended for advanced users only.	
	To continue, click Next.	
	< <u>B</u> ack <u>N</u> ext > Cancel	



- 3. [Optional remote restore]: If you are restoring to a remote Exchange Server click the **Backup** tab and then select **Tools > Remote store** from the top menu and enter the name of your remote Exchange Server.
- 4. Now click the **Restore and manage media** tab.
- Locate the backup file or tape you wish to restore from and expand this tree until you locate the Exchange Server Information Store. If the backup required is not listed click Tools > Catalog backup file to locate the appropriate backup.
- 6. Select each storage group you wish to restore:

Backup Utility - [Restore and Manage Media]			
<u>E</u> dit <u>V</u> iew <u>T</u> ools <u>H</u> elp			
elcome Backup Restore and Manage Media Schedule Jobs			
The second	na Diala altal, an a suada itan (a astina).		
	Name	Size	Modified
	Log Files	3/1	2/2003 12:23 PM
🖻 – 🛄 层 BA.bks created 3/12/2003 at 12:21 PM	🗹 🫅 Mailbox Store (SU	3/1	2/2003 12:23 PM
	🖸 🖂 🛅 Public Folder Stor	3/1	2/2003 12:23 PM
SUGARS\Microsoft Information Store\First Storage	Group		
🔤 💟 🔄 Log Files			
Public Folder Store (SUGARS)			
E Free Media			

7. Click Start Restore. You will be prompted with several choices:

You have selected to	restore backups from	a database store.	ОК
This backup data may e-directed to another	be restored to the ol database server.	iginal server, or	Cancel
Backup From: SUGA	BS\Microsoft Inform	ation Store\First Stor	age Group
Restore To:			
Restore To: SUGARS		Browse	
Bestore To: SUGARS Femporary location for	r log and patch files:	Browse	

- In this example we are restoring to a local Exchange Server so the **Restore To** field has been filled with the computer name of the local machine.
- The **Temporary location for log and patch files** should be any directory with enough free space to perform the restore. Windows Backup will create the directory if it does not already exist.
- If you are restoring a full backup of Exchange ensure that the last two options are checked. If you are restoring an incremental or differential backup, you should refer to the **section 8** for help.
- 8. Click **OK** to begin the restore of your Exchange Server.

### Step 3: Checking the restore logs

Once the restore is complete, you should see the following window Restore Progress window:

estore Pro	gress	?
The restore i	s complete.	<u>Close</u>
To see detai	led information, click Report.	<u>R</u> eport
Drive:	SUGARS\Microsoft Informatio	n Store\First Stora
Label:	BA.bks created 3/12/2003 at	12:21 PM



Click Report to view the logs, which will show the results of the Exchange Server restore operation:

🝺 backup10.log - Notepad	
Elle Edit Format View Help	
Restore Status Operation: Restore	*
Backup of "SUGARS\Microsoft Information Store\First Storage Group", Restored to"SUGARS\Microsoft I Backup set #2 on media #1 Backup description: "Set created 3/12/2003 at 12:23 PM"	Inform
Restore started on 3/12/2003 at 12:31 PM. Restore completed on 3/12/2003 at 12:31 PM. Directories: 4 Files: 6 Bytes: 21,013,392 Time: 4 seconds	

If the logs do not indicate any errors, we recommended that you now reboot your server. Your Exchange information store should be restored, mounted and operational.

## 4. Backing up Exchange using VSS

### 4.1 Creating a VSS application backup job

If you are running Exchange Server locally on the same machine where BackupAssist is installed, and are using an operating system with Volume Shadow Copy present (Windows XP/2003 and later), complete the following to back up your Exchange Server information store:

- 1. Launch BackupAssist and from the File menu select New backup job.
- 2. Select Windows Imaging<sup>3</sup>, File Replication, Zip, or Rsync and click Next.
- 3. During the **Files and Folders** step select the Exchange Server and any other VSS applications that you want to back up:

**Note**: locally installed VSS applications will be automatically detected and listed for selection. In some cases only applications that are currently **running** will be detected. If an application is not listed in the Files and Folders tab, try re-starting it and then click the **Refresh** button in BackupAssist.

#### Imaging jobs (Server 2008 and REV / rdx / NAS jobs on Server 2008R2)

For Imaging jobs running on Windows Server 2008 or jobs backing up to a REV or rdx drive or a NAS device on Windows Server 2008 R2, VSS applications can be selected from the **Applications** tab, but are backed up as part of a full volume snapshot. Volumes containing a VSS application that you want to back up must be fully selected. If you choose a VSS application to back up, the volumes that must be included for backup are listed in red. You can click the **Select required volumes** button if a required volume is not in your selections.



3 This is not available in Windows XP or 2003



#### File Replication, Zip and Imaging<sup>4</sup> jobs

You can select either entire VSS applications to back up or choose individual components:



4. If you are editing an existing job, navigate to **Volume selection** from the left menu for a Windows Imaging job on Server 2008 and **Files and folders** from the left menu for any other job:

📝 Overview	Volumes Applications	📝 Overview	Local files Local system selections Ren
I Destination	2 Refresh 💋 Check selections	I Destination	2 Refresh
Scheduling		🔮 Scheduling	Brend SBS08-System (C:) Name
Talendar	🗄 - 🗹 🎒 Microsoft Exchange - C:\	🛅 Calendar	
Volume selection		Files and folders	⊕ □
Exchange Servers		Exchange Servers	Internalisations (Er)
Notifications			G Sql Server
🗸 Scripts		Notifications	
Maging options		🎳 Scripts	master
	Selected applications will be notified before each backup, ma The volumes containing each application must still be include Leave an application unselected if vou're not backing up its re	🙀 Open files	

## 5. Running a backup of your Exchange Server

To test your Exchange Server backup you can either run your backup job manually or wait for the next scheduled backup to occur.

When an Imaging, File Replication, Rsync or Zip job runs, BackupAssist will automatically perform a consistency check on your Exchange Server and truncate log files to correctly back up the Exchange information store. If, however, the VSS backup mode is set to 'Copy' in the open files tab of a File Replication, Rsync, or Zip job, the Exchange logs will not be truncated.

For NTBackup jobs BackupAssist backs up your Exchange Server during the second phase of the backup process, after the selected data files and system state (both optional) have been backed up. (This helps to eliminate an issue with Windows Backup (NTBackup) where a backup of both the system state and Exchange Server information store in the same pass fails.)

To run a backup of your Exchange Server manually:

- 1. Click Quick actions from the top menu of BackupAssist and select Run now.
- 2. Choose Run a future backup and click Run.
- 3. During the backup process you can view the job's progress in the **Monitor** window:

<sup>&</sup>lt;sup>4</sup> Imaging jobs running on Windows Server 2008R2 only (excludes jobs backing up to REV / rdx drives)



資 Home 🦉 Ju	nbs 📮 Monitor 📄 Reports 📑 Even	nts 🎬 Restore	K Settings BackupAss
Image to USB HDD (27/02/2009 5:02:29 PM)	BackupAssist - Monitor Recent jobs monitor View running, or recently completed jobs		
Recent jobs	<ul> <li>Image to USB HDD (27/02/2009 5:02:29 PM)</li> <li>Check selections</li> <li>Check destination</li> <li>Preparing for image backup</li> <li>V55 snapshot &amp; consistency checks</li> <li>Backing up drive C: 1.0%</li> <li>Compile usage report</li> <li>Eject media</li> <li>Generate reports</li> </ul>	Start date & time: Running time: Progress log: Retrieving volume inf This would backup vo Backup to G: is starti Creating the shadow Running consistency Running backup of vo	27/02/2009 5:02:33 PM D hours 1 minutes formation plume SB508-System(C:) to G:. ng. :copy of volumes requested for backup. check for application Exchange. plume SB508-System(C:), copied (1%).] Qancel backup

### 5.1 Examining your backup logs

Once the backup completes, you should examine the backup report to make sure your Exchange Server was backed up successfully:

- 1. Click **Reports** in main navigation bar of BackupAssist.
- 2. Double-click the latest report in the list and scroll down to the Exchange Server backup report section.

For NTBackup jobs the report will include the backup and verify status of each storage group selected:

ob - Wednesday, March 19, 2008 📃 📃					
2	Exchange Server				
	"CORTEX-CA24XIB8\Microsoft Information Store\First Storage Group" Selections - 8.02MB Backup 🥝 Verify 🥥				
	Report				
	Backup of "CORTEX-CA24XIB8\Microsoft Information Store\First Storage Group"				
	Backup set #2 on media #1				
	Backup description: "Set created 3/19/2008 at 4:54 PM"				
	Media name: "2008-03-18.bkf created 3/19/2008 at 4:49 PM"				
	Backup Type: Normal				
	Backup started on 3/19/2008 at 4:54 PM.				
	Backup completed on 3/19/2008 at 4:54 PM.				
	Directories: 3				
	Files: 3				
	Bytes: 8,413,914				
	Time: 3 seconds				

For VSS application backup jobs the report will include an **Exchange Database Consistency Check** report and a VSS application backup report:





Backup Assist

up Made Easy

V Sy	/stem state – Successful
	DFS Replication service writer (Guid = 2707761b-2324-473d-88eb-eb007a359533) – Success
	IIS Config Writer (Guid = 2a40fd15-dfca-4aa8-a654-1f8c654603f6) – Successful
	COM+ REGDB Writer (Guid = 542da469-d3e1-473c-9f4f-7847f01fc64f) – Successful
	SPSearch VSS Writer (Guid = 57af97e4-4a76-4ace-a756-d11e8f0294c7) – Successful
	IIS Metabase Writer (Guid = 59b1f0cf-90ef-465f-9609-6ca8b2938366) – Successful
	OSearch VSS Writer (Guid = 8d5f38cd-fb7a-49ca-ae1b-21d1f017d8f9) – Successful
	WMI Writer (Guid = a6ad56c2-b509-4e6c-bb19-49d8f43532f0) – Successful
	Registry Writer (Guid = afbab4a2-367d-4d15-a586-71dbb18f8485) – Successful
	NTDS (Guid = b2014c9e-8711-4c5c-a5a9-3cf384484757) – Successful
	ASR Writer (Guid = be000cbe-11fe-4426-9c58-531aa6355fc4) – Successful
	System Writer (Guid = e8132975-6f93-4464-a53e-1050253ae220) – Successful
🥝 Е>	change (Guid = 76fe1ac4-15f7-4bcd-987e-8e1acb462fb7) – <b>Successful</b>
	Microsoft Exchange Server – Successful
	Microsoft Information Store – Successful
	📀 08EX2007SQL08SP <b>– Successful</b>
	🥝 First Storage Group – Successful
	🧭 Mailbox Database – Successful
	📀 Logs – Successful
🥝 S(	QL Server (Guid = a65faa63-5ea8-4ebc-9dbd-a0c4db26912a) <b>– Successful</b>
	📀 08EX2007SQL08SP – Successful

The Exchange System Manager will also indicate when the last full backup occurred on Exchange:



ailbox Database Properties 🛛 🗙			
General Limits Client Settings			
Mailbox Databas			
Database path:	C:\Program Files\Microsoft\Exchange Server\Mailbc		
Database copy path:	E:\ExchangeLCR\Mailbox\LocalCopies\First Storag		
Last full backup:	Wednesday, 18 February 2009 3:12:24 PM		
Last incremental backup:			
Status:	Mounted		
Modified:	Wednesday, 18 February 2009 12:52:58 PM		
·			
I Journal Recipient			
J	Browse		
Maintenance schedule:			
Run daily from 1:00 A.M. to 5:00 A.M.			
Do not mount this database at startup			
☐ Ihis database can be overwritten by a restore			
01	K Cancel Apply Help		

# 6. Restoring Exchange from a VSS application backup

If you backed up your Exchange Server using VSS, as outlined in **section 3** of this document, you can use the BackupAssist Restore Console to perform a VSS application restore of your entire Exchange Server:

- 1. In BackupAssist, click Restore in the top navigation bar and choose BackupAssist Restore Console.
- 2. The Restore Console will launch and you will be prompted with the 'Load backups' screen.
- 3. Click **Load all known backups** to load all backup catalogues located in the BackupAssist settings folder. Alternatively, use the **Browse** option to locate the backup set from which you want to restore.
- 4. Choose the job that corresponds to the backup from which you want to restore your Exchange Server from the available drop-down menu.
- 5. Use the calendar to select the date of the backup from which you want to restore.
- 6. Use the middle pane to expand the loaded backup set and select the Microsoft Exchange for restore.

h BackupAssist Restore				
BackupAssist Restore Console				
S Load backups 3 backups loaded 🚫 Clear				
🟳 Browse 🔍 File search				
Select a backup to browse: ExSQLSysState	Contents of ExSQLSysState - 6/29/2010 10:00:00 PM B-□ > Local Disk (C:) B-☑ → Microsoft Exchange B-☑ ↓ Microsoft Exchange Server	Folder details Name		
June, 2010 Sun Mon Tue Wed Thu Fri Sat	B-♥ I Microsoft Intormation Store D-♥ 0 06EX20075QL065P D-♥ First Storage Group B-♥ 0 Logs* B-♥ 0 Mailbox Database*			
<b>25</b> 26 27 <b>28 29</b>	⊕- <b>_ ●</b> Sql Server └── ₩ System State			

7. Click the **Restore to** button located on the bottom right of the window and follow the remaining prompts to your restore your Exchange Server.

#### How the VSS application restore works

VSS is designed to support live application restore. This means that you do not need to stop your Exchange Server before recovering a previous version of it from a backup.



If any Windows services need to be stopped and restarted during an application restore this will happen automatically. For example, during the restore of an Exchange database, the Exchange Server will prevent client access to that database. So while we recommend that you notify all users to stop using any applications before commencing a VSS application restore, the restore process will not be affected if the Exchange Server is in use.

# 7. Restoring mailboxes via a Recovery Storage group

The following process is useful if you have not setup mailbox backups to PST using the <u>BackupAssist Exchange</u> <u>Mailbox Add-on</u> and only want to recover one or more mailboxes rather than the entire Exchange Server.

### 7.1 Perquisites for recovery process

To restore Exchange 2007 or Exchange 2010 mailboxes from a full drive image backup created using the Windows Imaging engine in BackupAssist:

- 1. Complete the restore operation on a machine running **Windows Server 2008 and Server 2008R2**. (Windows Vista and Windows 7 only provide support for drive volume restore.)
- 2. Log into the machine as a user that is a member of the **Backup Operators** or **Administrators** group, or one that has been delegated the appropriate authority.
- 3. Ensure the following registry key contains the string value highlighted below:



HKEY\_LOCAL\_MACHINE\SOFTWARE\Microsoft\Windows NT\CurrentVersion\WindowsServerBackup\Application Support\

#### String information

String name: Application Identifier Data: Exchange

#### 7.2 Performing a recovery of your Exchange Server from an Image backup

After you have met the above prerequisites follow these steps to restore Exchange to a recovery storage group:

- 1. Launch BackupAssist and click **Restore** in the navigation bar.
- 2. Click Imaging engine restore to launch the Windows Server Backup console.
- 3. Click Recover under the Actions pane.





4. Once the Recovery Wizard has launched, select "This server", and then click Next.

Recovery Wizard X Select backup date				
Getting started Select backup date Select recovery type Select items to recover Specify recovery options Confirmation	Oldest available backup: 13/11/2008 8:17 AM Newest available backup: 27/02/2009 10:27 AM Available backups Select the date of a backup to use for recovery. Backup date: 27/02/2009			
Recovery progress	Mon Tue Wed Thu         Fri Sat Sun         Location:         \\Gershwin\Users\Aaron.A           26         27         28         29         30         31         1           2         3         4         5         6         7         8           9         10         11         12         13         14         15           16         17         18         19         20         21         22           23         24         25         26         27         28   Backups are available for dates shown in bold.			

- 5. Select the date from the calendar and the time from the drop-down list of the backup from which you want to restore. If you are recovering from this computer and the backup you select is stored on a removable media drive, you will be prompted to insert the relevant media. Then click **Next**.
- 6. When asked what you would like to recover, choose the option for Applications, and click Next.
- 7. Under Applications, highlight 'Exchange', and then click Next.

Recovery Wizard			
Select app	lication		
Getting started	Select application to recover.		
Select backup date	Applications:		
Select recovery type	Exchange		
Select application	Windows Sharepoint Services		
Specify recovery options			
Confirmation		View Details	
Recovery progress			

- 8. Under Recovery destination, select **Recover to another location**, select a directory located on the Exchange server, then click **Next**.
- 9. Review the details, and click **Recover** to restore the Exchange databases to the chosen directory.

#### 6.3 Creating and populating the Recovery storage group.

 Once the recovery process has completed navigate to the directory containing the backup of your storage group. You will need to rename all of the files in this directory beginning with an 'E' to begin with 'R'. This includes all of your log files.



#### Initially you will have:

Folders 🗸	Name 🔺 💌	Date modified 🛛 👻	Туре 🗸 🗸	Size 🚽 Tags
	Mailbox Database.edb	26/02/2009 2:13	EDB File	20,496 KB
	🚳 E00.chk	3/03/2009 9:51 PM	Recovered File F	8 KB
	📧 E00tmp.log	3/03/2009 10:02	LOG File	1,024 KB
Program Files	📧 E000000150F.log	2/03/2009 10:35	LOG File	1,024 KB
Microsoft	📧 E000000151A.log	3/03/2009 12:57	LOG File	1,024 KB
🕌 Exchange Server	📧 E000000151B.log	3/03/2009 1:12 AM	LOG File	1,024 KB
Mailbox	🖬 E000000151C.log	3/03/2009 1:27 AM	LOG File	1,024 KB
🍌 First Storage Group	📧 E000000151D.log	3/03/2009 1:42 AM	LOG File	1,024 KB
퉬 Second Storage Group	🖬 E000000151E.log	3/03/2009 1:57 AM	LOG File	1,024 KB

#### After the renaming you would have:

Folders	✓ Name ▲	🔸 Size 🕞 Tag
	Mailbox Database.edb 26/02/2009 2:13 EDB File	20,496 KB
	🔹 🚳 R00.chk 3/03/2009 9:51 PM Recovered F	File F 8 KB
₩ <u>₩</u> <u>₩</u>	R00tmp.log 3/03/2009 10:02 LOG File	1,024 KB
Program Files	R000000150F.log 2/03/2009 10:35 LOG File	1,024 KB
Microsoft	R000000151A.log 3/03/2009 12:57 LOG File	1,024 KB
🍌 Exchange Server	R000000151B.log 3/03/2009 1:12 AM LOG File	1,024 KB
📔 Mailbox	R000000151C.log 3/03/2009 1:27 AM LOG File	1,024 KB
🔒 First Storage Group	R000000151D.log 3/03/2009 1:42 AM LOG File	1,024 KB
퉲 Second Storage Group	R000000151E.log 3/03/2009 1:57 AM LOG File	1,024 KB
Second Storage Group	R000000151E.log 3/03/2009 1:57 AM LOG File	1,024 KB

2. You will now need to create a Recovery Storage Group to mount the database you are restoring. Begin by launching your **Exchange Management Console** and opening the **Disaster recovery toolbox** from the Toolbox node in the Exchange tree.



- 3. When the **Disaster recovery toolbox** loads, you will need to specify your server's name in order to connect to it. Enter the required details and click **Next**.
- 4. You can now make a Recovery Storage group by clicking Create Recovery storage group.
- 5. Once the wizard begins, select the storage group to restore to the RSG, and choose **Next**.





- 6. It is recommended that you use the default settings for the creation of the recovery storage group for ease of recovery. Make a note of the Recovery database path as you will need it in a few minutes. Once you have done this click **Create recovery storage group** and complete the wizard.
- 7. Once you have completed the wizard, launch an explorer window and navigate to the Recovery database path. **Copy** the renamed files from step 1 into this folder.
- 8. After copying the renamed database files go back to the **Disaster recovery toolbox** and click **Mount or dismount databases in the Recovery storage group**. Select the newly created RSG and mount it.

### 6.4 Performing merge from your Recovery storage group.

1. Once the RSG has mounted click Merge or copy mailbox contents.

PMicrosoft Exchange Troubles	hooting Assistant			
Microsoft Excha	Microsoft Exchange Troubleshooting Assistant			
Velcome	Select Mailboxes to Copy or Merge	•		
Select a task	Server name: DEV-SBS2008 Recovery storage group name: Recovery Storage Group Linked storage group name: First Storage Group Selected database name: Markow Database			
Restart current task				
Select a result file to view				
View a report	Linked database name: Mailbox Database			
See also	Matched mailboxes			
<ul> <li>The Exchange Troubleshooting Assistant Help</li> </ul>	Display Name         Mailbox GUID         Exchange L           ✓         Backup Assist         90343229-6aa4-4469-b54b-5/4e0870a7f0         /0=FIRST 0	egacy Distinguished Name		

- 2. Ensure the correct mailbox is listed in the recovery storage group and click Gather merge information.
- 3. Double check the merge details then click **Perform pre-merge tasks**.
- 4. Select the mailboxes you wish to merge and then choose Perform merge actions.
- 5. Check the merge results to verify that all tasks were successful and click Go back to task centre.

Do not forget to remove the Recovery storage group after you have finished using it. This can be done by using the **Remove the recovery storage group** option from within the disaster recovery toolbox.

# 7. Additional Resources

Microsoft Technet has some detailed article on Exchange. For more information visit these sites<sup>5</sup>:

Resource	Web Address	
Exchange 2003 Disaster Recovery	http://technet.microsoft.com/en-us/library/bb125070.aspx	
Exchange 2003 Administration Guide	http://www.microsoft.com/downloads/details.aspx?FamilyId=98E454 81-1458-4809-97D6-50D8AEEBD8A1&displaylang=en	
Exchange Server Resources	http://technet.microsoft.com/en-us/exchange/default.aspx	

<sup>&</sup>lt;sup>5</sup> BackupAssist disclaims any responsibility for the content or accuracy of these articles.